LOCAL DAMAGE SURVEYS

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Norman OK

When we survey

- Office policy
- In general, for Norman:
  - Possible F2 or greater damage
  - Tornado fatality
  - Unusual scientific event
  - Tornado vs. high-end wind event
- National QRT (Quick Response Team)
  - Possible F4/F5 damage

Why we survey

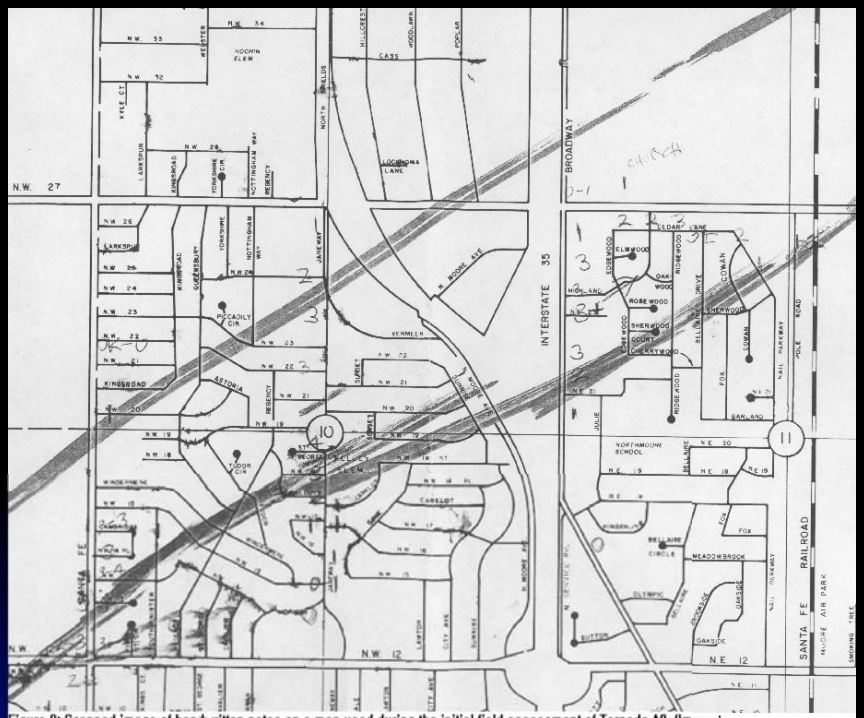
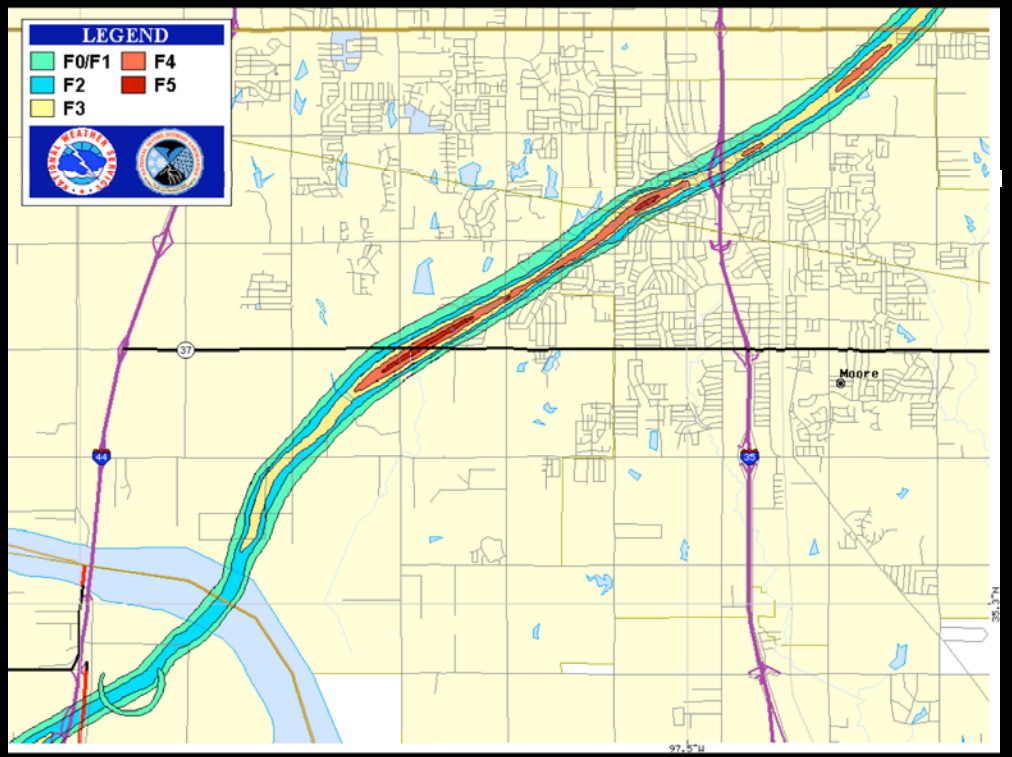


Figure 9: Scanned image of handwritten notes on a map used during the initial field assessment of Tornado A9. [Image is scanned from materials provided by Mike Branick]



Tornado vs. wind

Figure 9: Scanned image of handwritten notes on a map used during the initial field assessment of Tornado A9. (Image is scanned from materials provided by Greg Stumpf and Jim LaDue)

Learn more…

- **Risks**

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-Risks
-Points of Failure

Aerial Surveys

ADVANTAGES:

- Big picture.
- Better continuity between roads and in inaccessible areas.

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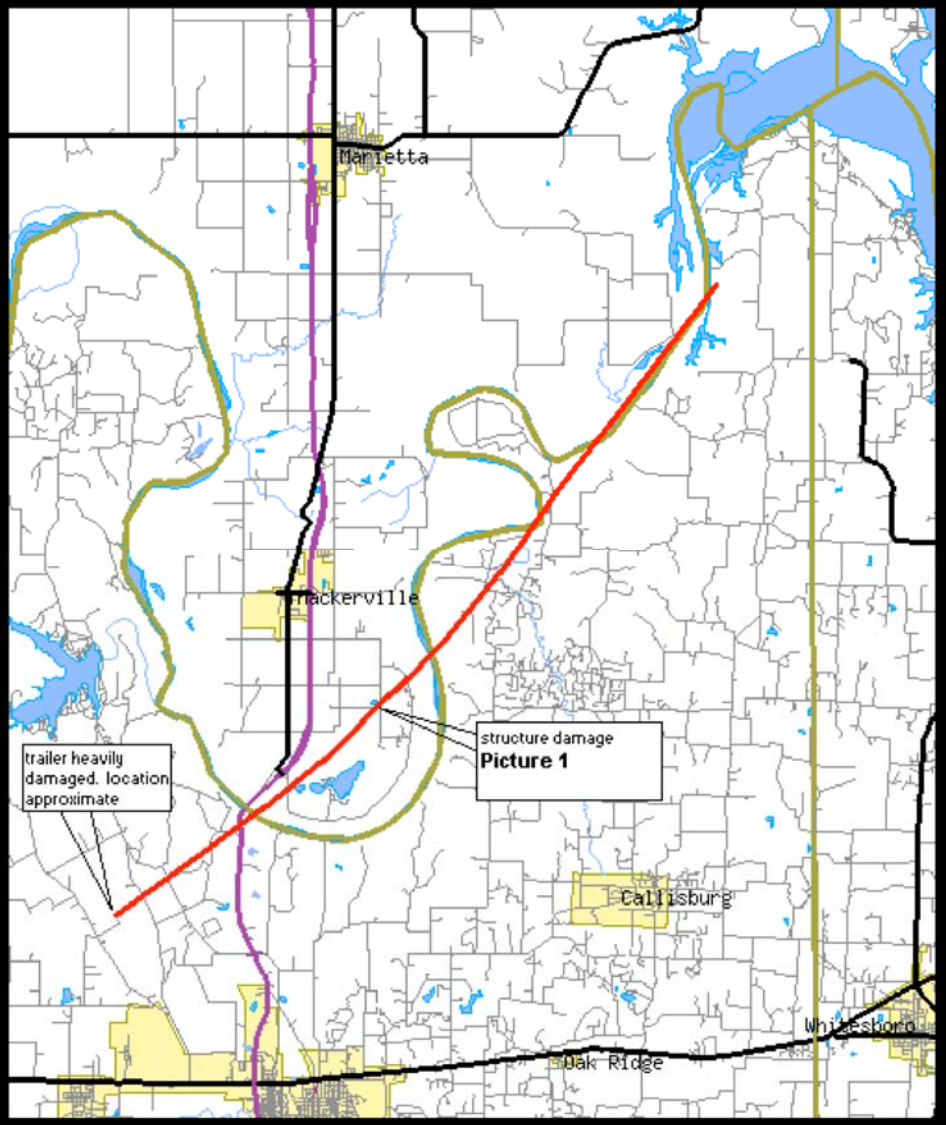

Aerial Surveys

ADVANTAGES:

- Big picture.
- Better continuity between roads and in inaccessible areas.

DISADVANTAGES:

- Difficult to find damage from weak events.
- Can not rate intensity.
- Not always available.
- Detail depends on vegetation type or building density

Ask questions!

F5 damage to a home in Moore, Cleveland County, Oklahoma, May 3, 1999. Note most debris has been blown away. (Photograph copyright 1999. The Oklahoma Publishing Co.)

Taken from NWS Service Assessment Oklahoma/southern Kansas Tornado Outbreak of May 3, 1999 (page 14).

Ask questions!

Real story: House burned down a few months before. Not tornado damage!

F5 damage to a home in Moore, Cleveland County, Oklahoma, May 3, 1999. Note most debris has been blown away. (Photograph copyright 1999. The Oklahoma Publishing Co.)

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F-scale *estimation*

- Must look at ALL the evidence
- Variations in *perceived* damage intensity may be the result of change in tornado intensity, or suggestion that perceived intensity may not apply!
-Depends on available points of reference

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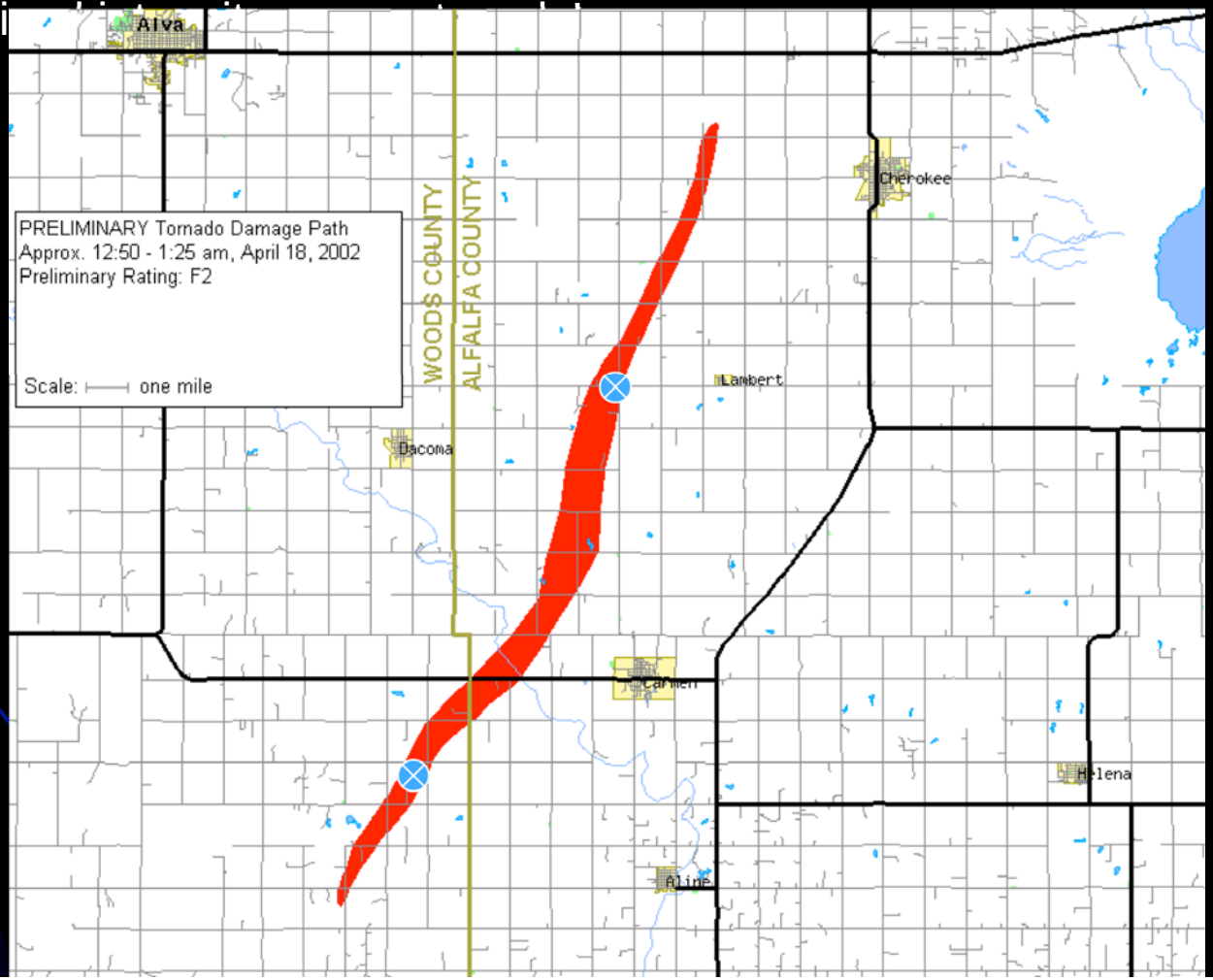
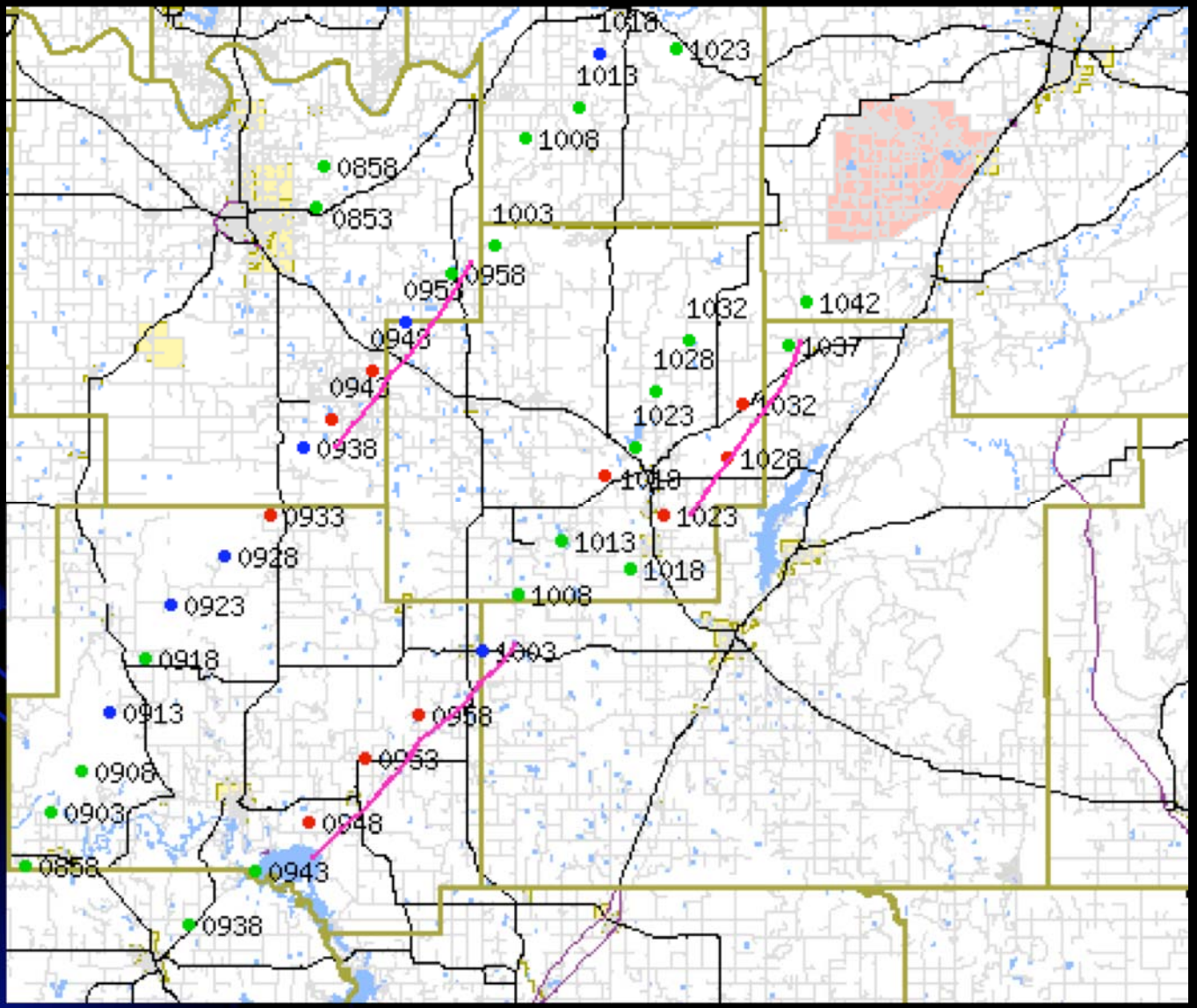
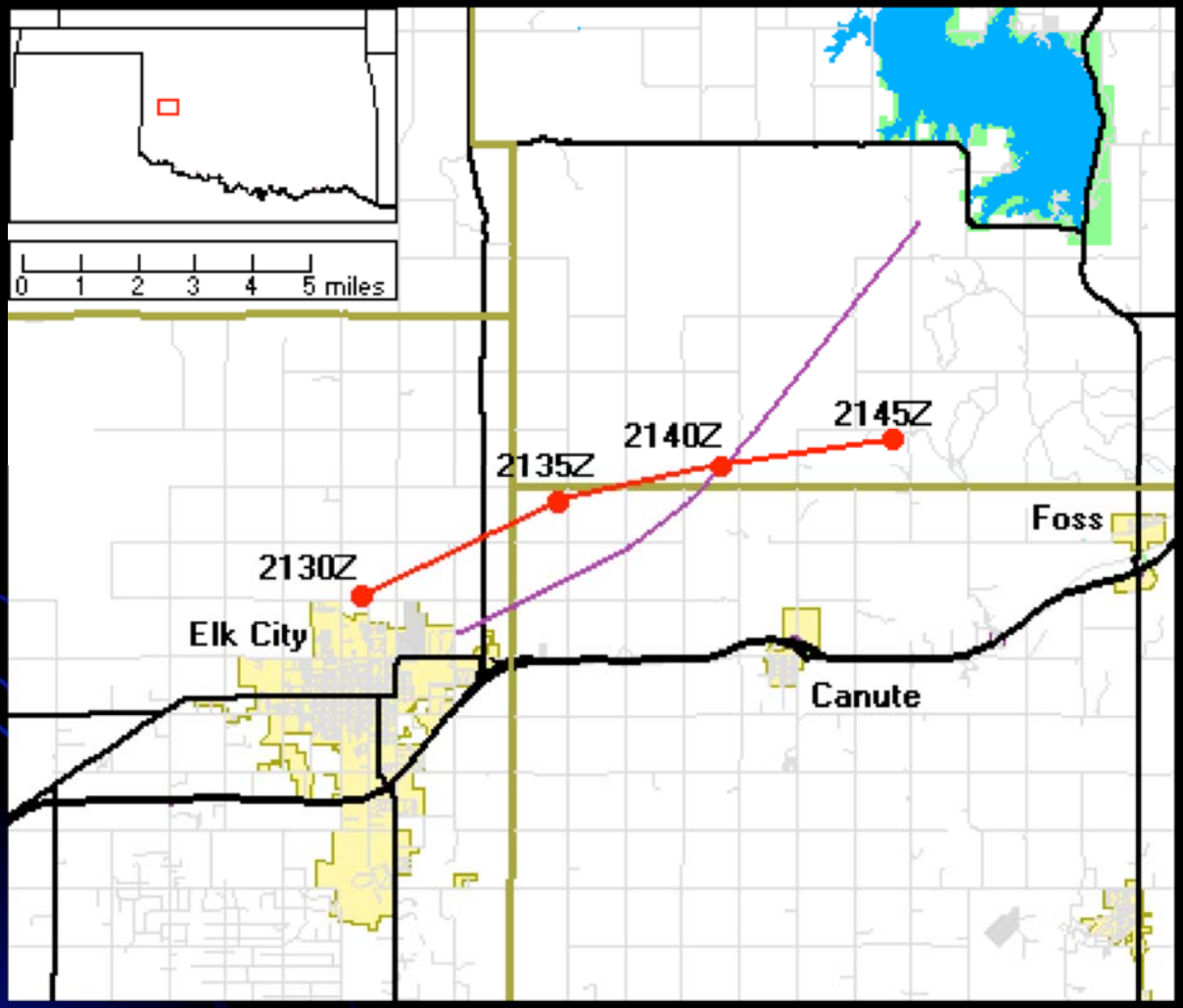


April 11, 2001 – SE Oklahoma

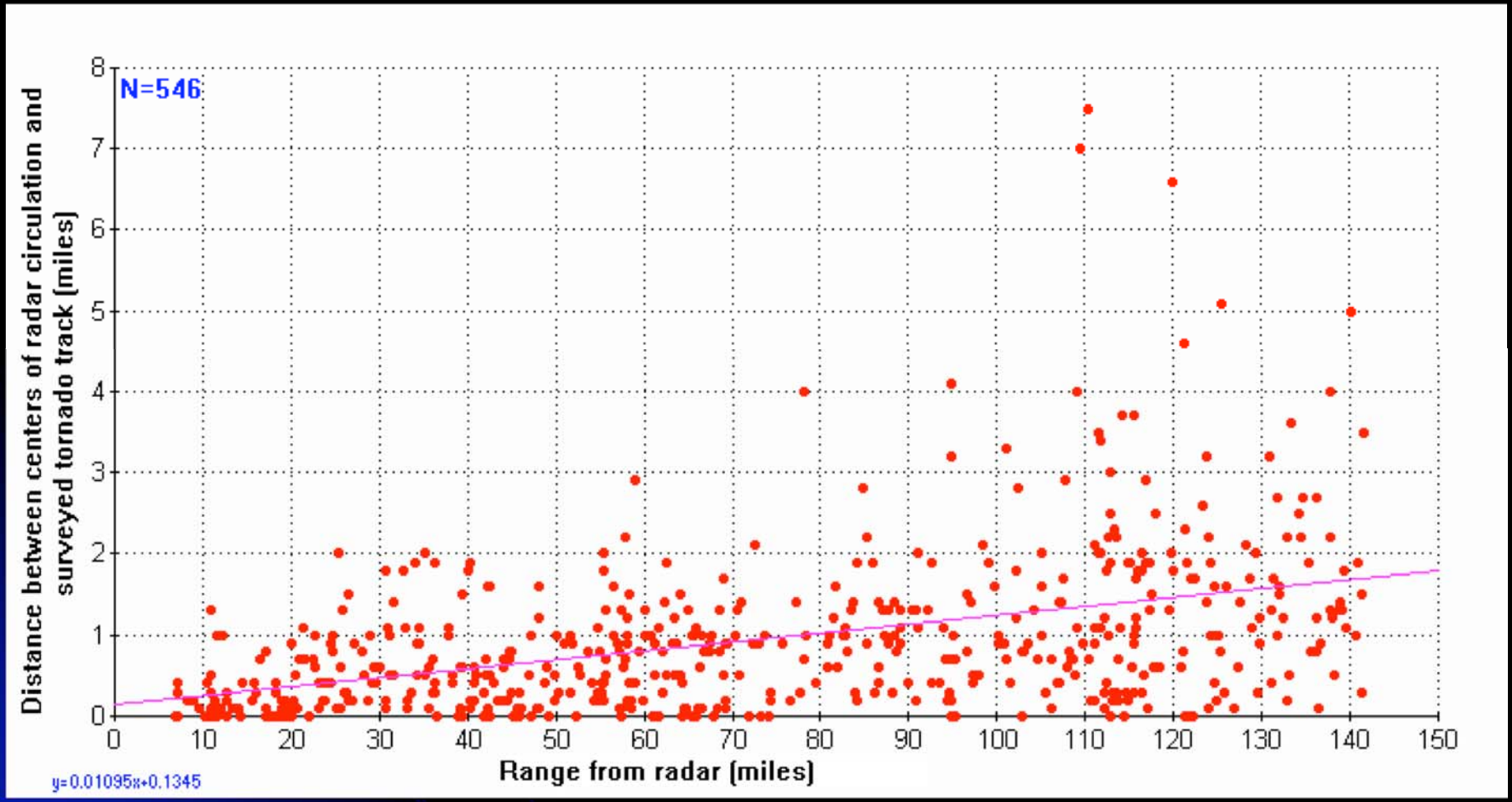


October 9, 2001 – W Oklahoma



What we can learn

Almost 100 surveyed tornadoes between 1995-2004:



General caveats about surveys

- Depend significantly on number/type of targets

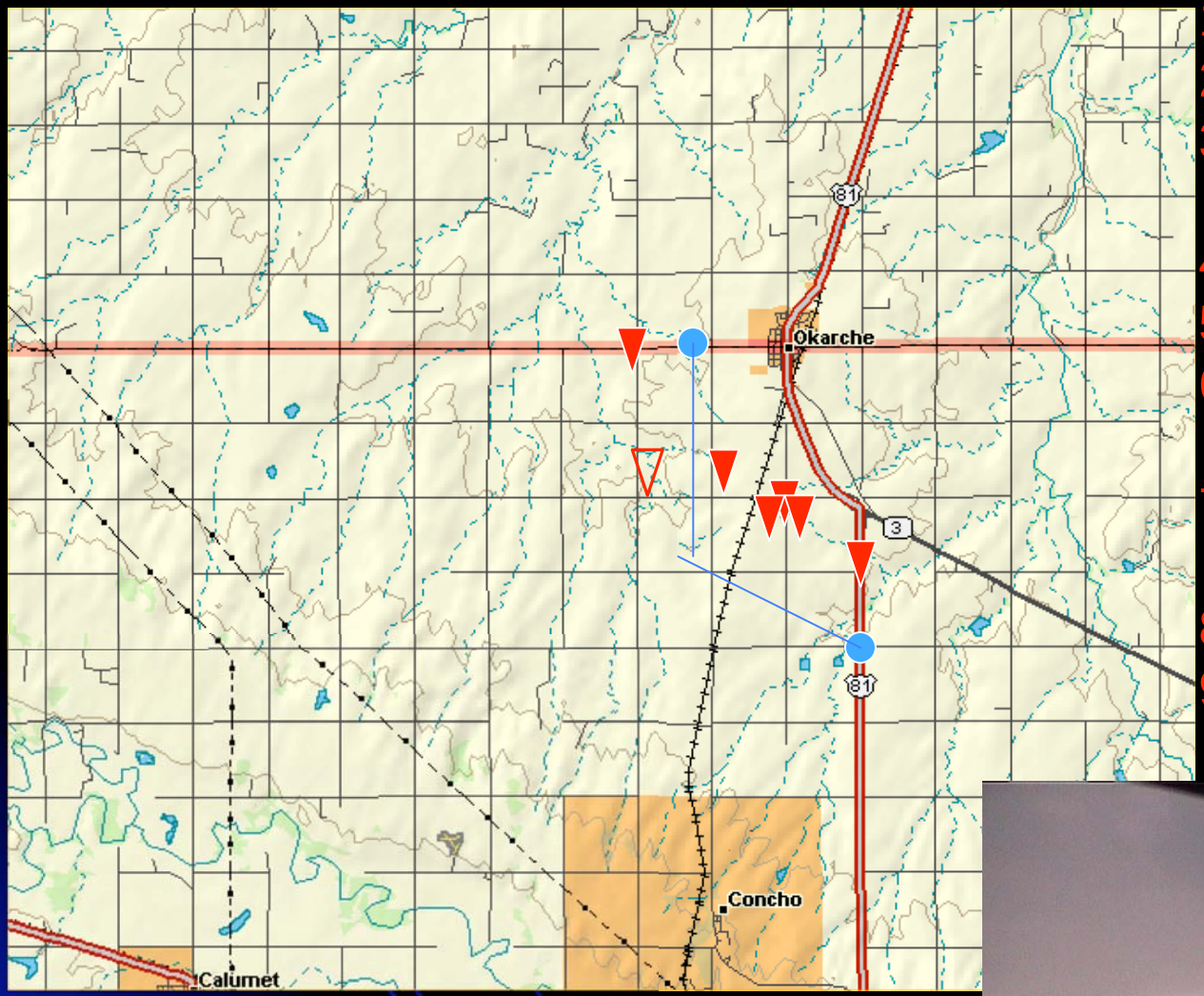
- Not the last word!
  - Also use eyewitnesses, other data sources

- Damage that you see may not be what you think

Non-surveyed tornadoes

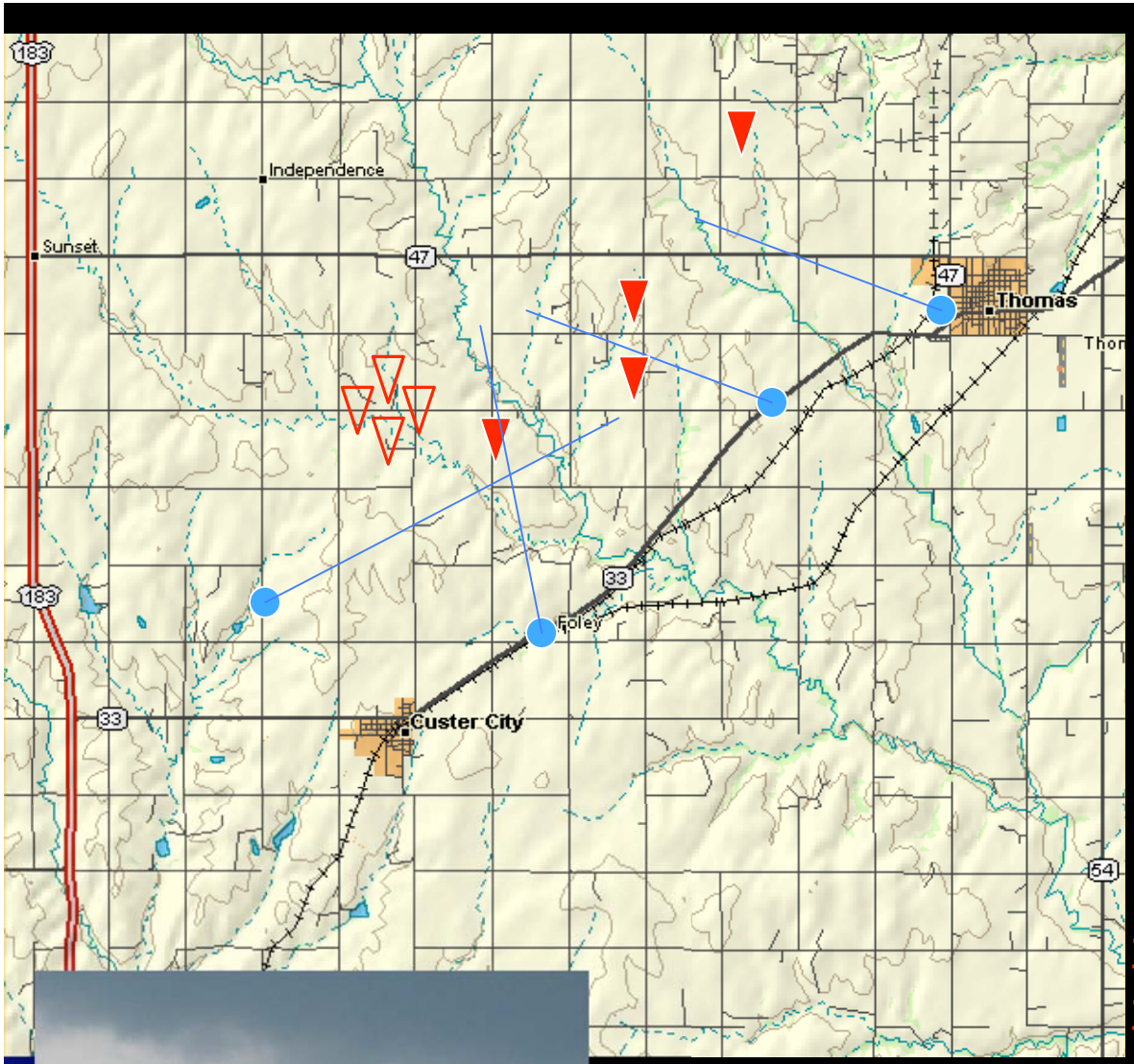
For Norman:

- Weigh evidence
- Get as many reports as possible
  - Photos/ videos
  - Compare reports to make sure same tornado
  - Compare times to other reports/radar
  - Newspaper reports of damage/photos
- Plot locations/triangulate
- Compare to radar (not using as verification, but just to make sure it makes some sense)



1: 6:48 pm, 2 S Okarche
2: 6:54 pm, 2 S Okarche
3: About 7:00 pm, WNW from 4 S Okarche
4: 6:45 pm, 2 W Okarche
5: No time, 2 S Okarche
6: About 7:00 pm, SW of Okarche
7: “Within 5 minutes” of 6:54 pm, 2 SSW Okarche
8: 6:58 pm, 3 SSE Okarche
9: About 7:00 pm, S from 1.25 W Okarche

Photo by Hank Baker



1: 3:30 pm, 4 W Thomas
2: 3:30 pm, 4 NNE Custer City
3: No time, WNW from 3 WSW Thomas
4: 3:25-3:30 pm, WNW from Thomas
5: No time, N of Custer City
6: 3:30 pm, 4 NW Thomas
7: No time, ENE from 2 NE Custer City
8: about 3:35 pm, N of Custer City
9: No time, brief N of Custer City
10: No time, N of Custer City
11: No time, N/NW from 2 NE Custer City
12: Before 3:36 pm, 5 WSW Thomas

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